Constellation Energy Source
A Member of the Constellation Energy Group

Biomass & Alternate Methane Fuels (BAMF) Experience

Constellation Energy Source Experience

- Landfill Gas Generation Since 1988
- Over 70 MW of IPP Generation Utilizing Waste-Wood & Agricultural Byproducts
- Steam Reforming Demonstration Projects
- Extensive ESPC Experience
- Environmental Assessment and Compliance
- Comprehensive Approach to BAMF and Energy Conservation Projects
- Expertise in National Federal Contracts and Streamlining Processes
- Vendor Neutrality
- Utility Rate and Regulatory Experience
- Financing of Federal Projects

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Constellation Energy Source Provides Renewable Energy Alternatives and Cost Savings for Federal Facilities

Constellation Energy Source was selected by the Department of Energy's (DOE) National Energy Technology Laboratory (NETL) to manage a national Biomass & Alternate Methane Fuels (BAMF) Energy Savings Performance Contract (ESPC) for Federal facilities worldwide. As a result, Constellation Energy Source develops, finances and implements energy savings projects at qualified facilities in return for fixed payments from the cost savings of the projects. The payment terms are negotiated and the facility retains all remaining cost savings after the contract term expires.

These projects will assist federal agencies in meeting their renewable energy and energy savings mandates while reducing operating and maintenance costs. BAMF projects and related energy technologies will reduce federal energy consumption, conserve our traditional fuel sources, and reduce our dependence on foreign oil.

Constellation Energy Source is ready to evaluate the energy savings opportunities at your facility. Please contact us to arrange for a preliminary evaluation.

Constellation Energy Source

Constellation Energy Source, a member of the Constellation Energy Group, is a full service energy company that provides businesses and Federal Agencies with comprehensive and creative solutions to meet the diverse and vast energy needs of their respective facilities. Constellation Energy Source utilizes its technical expertise to increase the efficiency and performance of Federal facilities with a focus on system requirements and agency mission.

After a thorough analysis of your operation, Constellation Energy Source develops a customized action plan that provides the most reliable, practical solutions from both a technical and financial point of view. We partner only with vendors who have proven expertise at delivering top-quality products, competitively priced. Furthermore, our strong relationships and extensive experience with a variety of financing resources – banks, government sources, leasing companies and private investment pools – offer you a number of financing options from which to choose.

Constellation Energy Source is your full service partner for energy-related products and services. Our energy experts are prepared to develop and follow-through on a custom-made plan to maximize your efficiency and reduce costs for your unique facility and requirements.

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BAMF / ESPC Reference Projects

BAMF Super ESPC Facts for Federal Facilities

- Reduces Energy Costs Through the Use of Renewable Energy
- Conserves Traditional Fuel Sources, Reducing Our Dependence on Foreign Oil
- Assists with Goals Established by E.O. 13123, *"Greening the Government Through Efficient Energy Management"*
- Integral to Meeting E.O. 13134, *"Developing and Promoting Biobased Products and Bioenergy"*
- Can Integrate other Energy Conservation Projects with BAMF Projects
- Variety & Transportability of Biomass Materials Makes Potential Opportunities Nearly Limitless
- Tech-Specific Super ESPC's are Proven and Recommended Contract Vehicles for Federal Facilities
- Minimizes Risks of Volatile Energy Prices
- Provides Facility Improvements without Capital Appropriations
- Minimizes Maintenance Costs for Utility and Energy Consuming Systems
- A BAMF Project is NOT a New Technology, It's a New Source of Fuel

Super ESPC Example

U.S. Army Aberdeen Proving Ground
Geothermal Technology Specific Super ESPC

Project Cost: $5.7 million, Annual Savings: $600,000
Project Scope: Installation of 643 geothermal heat pump systems for military family housing. These new systems also included the installation of de-super heaters to the existing Domestic Hot Water Heaters in each unit to further add additional energy savings to the project. The project was entirely paid for out of the annual energy savings. Constellation Energy Source will maintain, repair, and guarantee the performance of the entire system for 20 years.

BIOMASS Project Example

Constellation's Rio Bravo Rocklin Power Station
25 MW Biomass -- Wood Waste & Agricultural Byproducts Plant

Project Scope: Design, build, own, and operation of a single unit nominally rated 25 MW power station. The plant was placed into commercial operation in 1989. The station is required to operate as a Qualifying Facility (QF) in accordance with the requirements of PURPA. The steam generator for this station features a circulating fluidized bed boiler design, which was designed to burn biomass, primarily wood waste and agricultural byproducts. Energy is generated by a single 28,000 kW, 12.47 kV generator and the voltage stepped up so it can be connected to the Pacific Gas & Electric (PG&E) grid. Financially, the project receives revenues through its Power Purchase Agreement (PPA) with PG&E that includes both capacity and energy fees. The term of the PPA is 30 years and extends through 2019.

ALTERNATE METHANE Generation Example

Prince George's County Landfill Waste To Energy
Curtis Engine's 2.5MW Landfill Gas Cogenerator

Project Cost: $5,500,000, Annual Savings: $1,000,000
Project Scope: Utilization of approximately 1.8 million cubic feet of Landfill Gas to produce 2.5MW of electricity and 150MBTU's of Boiler heat. This equates annually to 13,140,000 kWh for internal use, 7,920,000 kWh sold to the grid, and 547,000 therms of gas used internally. This project includes a long-term contract for operation and maintenance. The engine performance is also guaranteed over the life of the contract. An additional 4.4MW of electric generation is currently under development.